

Table 4-1. Soil Sample Locations and Testing.

Station	Northing (ft)	Easting (ft)	Depth (ft bgs)	TOC ¹	Metals ²	NWTPH ³	VPH/EPH ⁴	SVOCs ⁵	Dioxins/ Furans ⁶	Pest/ PCBs ⁷	Physical Testing ⁸	Archive
TP-1	TO BE PROVIDED IN FINAL SAP		0-1	✓	✓	DRO/GRO					✓	✓
			1-2									✓
			2-3								✓	✓
			Bottom									✓
TP-2			0-1	✓	✓	DRO/GRO					✓	✓
			1-2									✓
			2-3								✓	✓
			Bottom									✓
TP-3			0-1	✓	✓	DRO/GRO					✓	✓
			1-2									✓
			2-3								✓	✓
			Bottom									✓
TP-4			0-1	✓	✓	DRO					✓	✓
			1-2									✓
			2-3								✓	✓
			Bottom									✓
TP-5			0-1	✓	✓	DRO					✓	✓
			1-2									✓
			2-3								✓	✓
			Bottom									✓
TP-6			0-1	✓	✓	DRO					✓	✓
			1-2									✓
			2-3								✓	✓
			Bottom									✓

Table 4-1. Soil Sample Locations and Testing. (continued)

Station	Northing (ft)	Easting (ft)	Depth (ft bgs)	TOC ¹	Metals ²	NWTPH ³	VPH/EPH ⁴	SVOCs ⁵	Dioxins/ Furans ⁶	Pest/ PCBs ⁷	Physical Testing ⁸	Archive
TP-7	TO BE PROVIDED IN FINAL SAP		0-1	✓	✓	DRO					✓	✓
			1-2									✓
			2-3								✓	✓
			Bottom									✓
TP-8			0-1	✓	✓	DRO					✓	✓
			1-2									✓
			2-3								✓	✓
			Bottom									✓
TP-9			0-1	✓	✓	DRO/GRO					✓	✓
			1-2									✓
			2-3								✓	✓
			Bottom									✓
TP-10			0-1	✓	✓	DRO					✓	✓
			1-2									✓
			2-3								✓	✓
			Bottom									✓
TP-11			0-1	✓	✓	DRO					✓	✓
			1-2									✓
			2-3								✓	✓
			Bottom									✓
TP-12			0-1	✓	✓	DRO					✓	✓
			1-2									✓
			2-3								✓	✓
			Bottom									✓

Table 4-1. Soil Sample Locations and Testing. (continued)

Station	Northing (ft)	Easting (ft)	Depth (ft bgs)	TOC ¹	Metals ²	NWTPH ³	VPH/EPH ⁴	SVOCs ⁵	Dioxins/ Furans ⁶	Pest/ PCBs ⁷	Physical Testing ⁸	Archive
HA-1	TO BE PROVIDED IN FINAL SAP		0-1	✓	✓	DRO				✓	✓	✓
			1-2									✓
HA-2			0-1	✓	✓	DRO				✓	✓	✓
			1-2									✓
HA-3			0-1	✓	✓	DRO				✓	✓	✓
			1-2									✓
HA-4			0-1	✓	✓	DRO				✓	✓	✓
			1-2									✓
HA-5			0-1	✓	✓	DRO				✓	✓	✓
			1-2									✓
HA-6			0-1	✓	✓	DRO				✓	✓	✓
			1-2									✓
HA-7			0-1	✓	✓	DRO					✓	✓
			1-2									✓
HA-8			0-1	✓	✓	DRO					✓	✓
			1-2									✓
Background	TBD	TBD	0-1	✓	✓	GRO/DRO	✓	✓	✓	✓	✓	✓
Total Samples				21	21	21	≤21⁹	≤21⁹	≤21⁹	7	33	65

¹ Total organic carbon will be analyzed for all 0-1 ft soil samples by EPA Method SW 9060 Modified (Ecology).

² Metals analysis will include arsenic, cadmium, chromium, copper, lead, mercury, nickel, silver, zinc (EPA Methods 6010/7471A).

³ NWTPH analysis (Ecology 1997) will include both gasoline-range hydrocarbons (GRO) and diesel-range hydrocarbons (DRO) except where indicated.

⁴ VPH/EPH petroleum fractionated analysis (Ecology 1997) will be analyzed for selected samples exceeding GRO/DRO SL's or, at a minimum, 20 percent of total samples analyzed.

⁵ SVOCs will be analyzed for samples exceeding GRO/DRO SL's or, at a minimum, 20 percent of total samples analyzed for confirmation purposes (EPA Method SW 8270C low levels).

⁶ Dioxins/Furans will be analyzed by EPA Method 1613B for samples with PCP concentrations exceeding SL.

⁷ Chlorinated Pesticides/PCBs will be analyzed by EPA Method SW 8081/8082 for soil samples collected to evaluate BNSF.

⁸ Physical testing will include grain size (ASTM D 422-63 w/hydrometer), Atterburg limits (ASTM D 4318-00), Specific Gravity (ASTM 854-02), and moisture content (ASTM 2216).

⁹ Sample total is dependent on the number of samples exceeding SL's, with a minimum of 20 percent site samples analyzed for SVOCs and VPH/EPH.

Note: Field duplicate samples will be collected at a frequency of 1 per 20 field samples. Equipment rinse blank samples will be collected once per sampling method.

Table 4-2. Groundwater Sampling Locations and Testing (Each Sampling Cycle).

Station	Northing (ft)	Easting (ft)	Conventional Testing ¹	Metals ²	NWTPH ³	SVOCs ⁴	Dioxins/Furans ⁵
MWLSC01	TO BE PROVIDED IN FINAL SAP		✓	✓	GRO/DRO	✓	✓
MWLSC02			✓	✓	GRO/DRO	✓	✓
MWLSC03			✓	✓	GRO/DRO	✓	✓
MW06D			✓	✓	GRO/DRO	✓	✓
Total Samples			4	4	4	4	4

¹ Conventional testing will include TOC (EPA Method 415.1), TSS (EPA Method 160.2), and Hardness (SM 2340B).

² Metals analysis will include arsenic, cadmium, calcium, chromium, copper, lead, magnesium, mercury, nickel, silver, zinc (EPA Methods 200.8/6010B/7470).

³ NWTPH analysis (Ecology 1997) will include both gasoline-range (GRO) and diesel-range (DRO) hydrocarbons. VPH/EPH petroleum fractionated analysis (Ecology 1997) will be analyzed for all samples exceeding GRO/DRO SLs.

⁴ SVOCs will be analyzed by EPA Method SW 8270C low levels for comparison to State Surface Water Quality Criteria.

⁵ Dioxins/Furans will be analyzed by EPA Method 1613B.

Note: Field duplicate samples will be collected at a frequency of 1 per 20 field samples. Equipment rinse blank samples will be collected once per sampling method.

Table 4-3. Surface Water Sampling Locations and Testing (Each Sampling Cycle).

Station	Northing (ft)	Easting (ft)	Conventional Testing ¹	Metals ²	NWTPH ³	SVOCs ⁴	Dioxins/ Furans ⁵
SW01	TO BE PROVIDED IN FINAL SAP		✓	✓	GRO/DRO	✓	
SW04			✓	✓	GRO/DRO	✓	
SW05			✓	✓	GRO/DRO	✓	✓
SW06			✓	✓	GRO/DRO	✓	✓
SW07			✓	✓	GRO/DRO	✓	
SW09			✓	✓	GRO/DRO	✓	
Background			✓	✓	GRO/DRO	✓	✓
Total Samples			7	7	7	7	3

¹ Conventional testing will include TOC (EPA Method 415.1), TSS (EPA Method 160.2), and Hardness (SM 2340B).

² Metals analysis will include arsenic, cadmium, calcium, chromium, copper, lead, magnesium, mercury, nickel, silver, zinc (EPA Methods 200.8/6010B/7470).

³ NWTPH analysis (Ecology 1997) will include both gasoline-range (GRO) and diesel-range (DRO) hydrocarbons. VPH/EPH petroleum fractionated analysis (Ecology 1997) will be analyzed for all samples exceeding GRO/DRO SLs.

⁴ SVOCs will be analyzed by EPA Method SW 8270c low levels for comparison to State Surface Water Quality Criteria.

⁵ Dioxins/Furans will be analyzed by EPA Method 1613B.

Note: Field duplicate samples will be collected at a frequency of 1 per 20 field samples. Equipment rinse blank samples will be collected once per sampling method.

Table 4-4. Sediment Sample Locations and Testing.

Station	Northing (ft)	Easting (ft)	Depth (ft bgs)	Metals ¹	NWTPH ²	VPH/EPH ³	SVOCs ⁴	Dioxins/ Furans ⁵	Conventional Testing ⁶	Physical Testing ⁷	Bioassays ⁸	Archive
SB-1	TO BE PROVIDED IN FINAL SAP		0-1	✓	DRO				✓	✓		✓
			1-2									✓
			2-3							✓		✓
			3-4									✓
			4-5									✓
SB-2			0-1	✓	DRO				✓	✓		✓
			1-2									✓
			2-3							✓		✓
			3-4									✓
			4-5									✓
SB-3			0-1	✓	DRO				✓	✓		✓
			1-2									✓
			2-3									✓
			3-4									✓
			4-5									✓
SB-4			0-1	✓	DRO				✓	✓		✓
			1-2									✓
			2-3							✓		✓
			3-4									✓
			4-5									✓

Table 4-4. Sediment Sample Locations and Testing. (continued)

Station	Northing (ft)	Easting (ft)	Depth (ft bgs)	Metals ¹	NWTPH ²	VPH/EPH ³	SVOCs ⁴	Dioxins/ Furans ⁵	Conventional Testing ⁶	Physical Testing ⁷	Bioassays ⁸	Archive
SB-5	TO BE PROVIDED IN FINAL SAP		0-1	✓	DRO				✓	✓		✓
			1-2									✓
			2-3							✓		✓
			3-4									✓
			4-5									✓
SB-6			0-1	✓	DRO				✓	✓		✓
			1-2									✓
			2-3									✓
			3-4									✓
			4-5									✓
SB-7			0-1	✓	DRO				✓	✓		✓
			1-2									✓
			2-3							✓		✓
			3-4									✓
			4-5									✓
SB-8			0-1	✓	DRO				✓	✓		✓
			1-2									✓
			2-3							✓		✓
			3-4									✓
			4-5									✓
SB-9			0-1	✓	DRO				✓	✓		✓
			1-2									✓
			2-3									✓
			3-4									✓
			4-5									✓

Table 4-4. Sediment Sample Locations and Testing. (continued)

Station	Northing (ft)	Easting (ft)	Depth (ft bgs)	Metals ¹	NWTPH ²	VPH/EPH ³	SVOCs ⁴	Dioxins/ Furans ⁵	Conventional Testing ⁶	Physical Testing ⁷	Bioassays ⁸	Archive
SB-10	TO BE PROVIDED IN FINAL SAP		0-1	✓	DRO				✓	✓		✓
			1-2									✓
			2-3							✓		✓
			3-4									✓
			4-5									✓
SB-11			0-1	✓	DRO				✓	✓		✓
			1-2									✓
			2-3									✓
			3-4									✓
			4-5									✓
SB-12			0-1	✓	DRO				✓	✓		✓
			1-2									✓
			2-3							✓		✓
			3-4									✓
			4-5									✓
SB-13			0-1	✓	DRO				✓	✓		✓
			1-2									✓
			2-3									✓
			3-4									✓
			4-5									✓
SB-14			0-1	✓	DRO				✓	✓		✓
			1-2									✓
			2-3							✓		✓
			3-4									✓
			4-5									✓

Table 4-4. Sediment Sample Locations and Testing. (continued)

Station	Northing (ft)	Eastin g (ft)	Depth (ft bgs)	Metal s ¹	NWTPH ²	VPH/EPH ³	SVOCs ⁴	Dioxins/ Furans ⁵	Conventional Testing ⁶	Physical Testing ⁷	Bioassays ⁸	Archive
SB-15	TO B PROVIDED IN FINAL SAP		0-1	✓	DRO				✓	✓		✓
			1-2									✓
			2-3							✓		✓
			3-4									✓
			4-5									✓
SB-16			0-1	✓	DRO				✓	✓		✓
			1-2									✓
			2-3									✓
			3-4									✓
			4-5									✓
SB-17			0-1	✓	DRO				✓	✓		✓
			1-2									✓
			2-3							✓		✓
			3-4									✓
			4-5									✓
SB-18			0-1	✓	DRO				✓	✓		✓
			1-2									✓
			2-3									✓
			3-4									✓
			4-5									✓
SB-19			0-1	✓	DRO				✓	✓		✓
			1-2									✓
			2-3							✓		✓
			3-4									✓
			4-5									✓

Table 4-4. Sediment Sample Locations and Testing. (continued)

Station	Northing (ft)	Eastin g (ft)	Depth (ft bgs)	Metal s ¹	NWTPH ²	VPH/EPH ³	SVOCs ⁴	Dioxins/ Furans ⁵	Conventional Testing ⁶	Physical Testing ⁷	Bioassays ⁸	Archive
SB-20	TO BE PROVIDED IN FINAL SAP		0-1	✓	DRO				✓	✓		✓
			1-2									✓
			2-3							✓		✓
			3-4									✓
			4-5									✓
SB-21			0-1	✓	DRO				✓	✓		✓
			1-2									✓
			2-3									✓
			3-4									✓
			4-5									✓
SB-22			0-1	✓	DRO				✓	✓		✓
			1-2									✓
			2-3							✓		✓
			3-4									✓
			4-5									✓
SB-23			0-1	✓	DRO				✓	✓		✓
			1-2									✓
			2-3									✓
			3-4									✓
			4-5									✓
SB-24			0-1	✓	DRO				✓	✓		✓
			1-2									✓
			2-3							✓		✓
			3-4									✓
			4-5									✓
LSC-07			0-0.3	✓	DRO				✓*	✓		✓

Table 4-4. Sediment Sample Locations and Testing. (continued)

Station	Northing (ft)	Eastin g (ft)	Depth (ft bgs)	Metal s ¹	NWTPH ²	VPH/EPH ³	SVOCs ⁴	Dioxins/ Furans ⁵	Conventional Testing ⁶	Physical Testing ⁷	Bioassays ⁸	Archive
LSC-08			0-0.3	✓	DRO				✓*	✓		✓
LSC-09			0-0.3	✓	DRO				✓*	✓		✓
LSC-10			0-0.3	✓	DRO				✓*	✓		✓
LSC-11			0-0.3	✓	DRO				✓*	✓		✓
LSC-12			0-0.3	✓	DRO				✓*	✓		✓
Background			0-0.3	✓	DRO	✓	✓	✓	✓*	✓		✓
Total Samples				31	31	≤31⁹	≤31⁹	≤31⁹	31	46	≤7¹⁰	127

¹ Metals analysis will include arsenic, cadmium, chromium, copper, lead, mercury, nickel, silver, zinc (EPA Methods SW 6010/7471A).

² NWTPH analysis (Ecology 1997) will include both gasoline-range (GRO) and diesel-range (DRO) hydrocarbons except where indicated.

³ VPH/EPH petroleum fractionated analysis (Ecology 1997) will be analyzed for selected samples exceeding GRO/DRO SL's or, at a minimum, 20 percent of total samples analyzed.

⁴ SVOCs will be analyzed for samples exceeding GRO/DRO SL's or, at a minimum, 20 percent of total samples analyzed for confirmation purposes (EPA Method SW 8270C low levels).

⁵ Dioxins/Furans will be analyzed by EPA Method 1613B for samples with PCP concentrations exceeding SL.

⁶ Total organic carbon will be analyzed by EPA Method SW 9060 modified for sediment analysis. Samples (✓*) planned for bioassay testing will also be analyzed for total solids (PSEP 1986), ammonia (Plumb 1981/EPA Method 350.1) and total sulfides (PSEP 1986/EPA 376.2).

⁷ Physical testing will include grain size (ASTM D 422-63 w/hydrometer), Atterburg limits (ASTM D 4318-00), Specific Gravity (ASTM 854-02), and moisture content (ASTM 2216).

⁸ Bioassay testing will include the 10-day Amphipod (*Hyalella azteca*), Micortox Porewater (*Vibrio fischeri*), and 21-day Midge Larvae (*Chironomus tentans*).

⁹ Sample total is dependent on the number of samples exceeding SL's, with a minimum of 20 percent site samples analyzed for SVOCs and EPH.

¹⁰ LSC-07 through LSC-12 will be chemically analyzed first and compared to SL's. If samples exceed chemical SL's, bioassay testing will be conducted on those samples along with appropriate reference sediment.

Note: Field duplicate samples will be collected at a frequency of 1 per 20 field samples. Equipment rinse blank samples will be collected once per sampling method.